The Short-term effects of US elections on the Stock Market.

Honors Undergraduate Thesis

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Abstract

According to Efficient Market Hypothesis, asset prices fully reflect all available information in the stock market. The potential risks and market uncertainty, such as interest rates, inflation and unemployment, can affect investment strategy. Focusing on political risk, investors believe that the control of government can hurt or benefit the whole market in both the short and long term. In the paper "Political Elections and the Resolution of Uncertainty: the International Evidence", Pantzails, Stangeland and Turtle collected data from election dates for 33 countries in the period 1955-1974. They found that there is a positive market reaction in the two weeks preceding political elections, and, when the uncertainty is resolved, there is a corresponding increase in equity prices. I decided to test if election uncertainty can influence stock market volatility, and if there is an abnormal return one month before and after the election date. My study chooses the election dates for both the General Presidential election and Midterm election from 1940 to 2018, collecting the total monthly return data (S&P 500 INDEX) from Bloomberg dataset. The main hypothesis of this paper is that because of the accurate predictions and polling before Presidential election years, the uncertainty of election is not a big influential factor that can lead Abnormal Return or increase the volatility of the market. However, different parties and the consistence of President and Congress can make the market react differently.

Acknowledgements

First and foremost, I would show my great thanks to my advisor, Prof. Zhang Shaojun, a knowledgeable and resourceful professor who expertise in Finance. She guided me and gave me necessary suggestions in each step of my thesis. With the help of her impressive experience and enlightening instruction, I can complete my thesis. In the past several months, her professional and keen academic viewpoints encourage me to continue my research in the Financial area.

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1. Introduction

Introduction to the US election system

In US, the General Presidential election takes place every four years and the President can be newly-elected or re-elected. The Mid-Term election is held every two years after the General President election, deciding which party will have the right to control the Congress. Thus, the Federal elections are held every two years, on the first Tuesday after the first Monday in November (*Whitehouse, Elections and Voting*). Between 1932 and 1980, the election day was designated as a market holiday and the stock market closed (*Mark Decambre*).

Introduction to This Research

In the financial market, not every trader can be a rational investor and always makes the correct strategy. When investors try to scan the general environment of business, there are many potential factors can influence the process of strategy management. Based on the PESTLE (Political, Economic, Social, Legal and Environmental) Model, the Political factor is an important issue that investors need to pay attention when making an analysis for the market. The political factor include the government policy, tax policy, the trade restrictions and the overall political stability, etc. All these political issues can affect the business environment to a great extent and require investors adjust there investment strategy accordingly. For example, according to the research in the journal *Company stock price reactions to the 2016 election shock: Trump, taxes, and trad,* the election of Donald J. Trump as the 45th President of the United States leads to the dramatic tax reduction from its original level. The stock market reactions from the day before the election through President Trump's first hundred days in office shows strong evidence that high tax-paying firms are in very good performance, while those with large deferred tax assets companies are underperformed (Alexander, Richard & Alexandre).

This research paper will focus on how political factor, more specifically the President Election and Midterm Election, affect the stock market. The following parts include a literature review, which shows up the previous related research about the topic; the hypothesis section, which includes my expected results and the key questions this paper try to discover. The Methodology and Analysis part illustrates the process of data collection and the methods of analyzation. The following is the results part, which not only summarize the overall results, but also provide explanations and implications.

2. Literature Review

2.1 Efficient Market Hypothesis

In 1965, the Economist Eugene Fama first introduced the "Efficient Market" in his journal *The Behavior of Stock-Market Prices*. An Efficient Market is a place where prices at every point in time represent best estimates of intrinsic values (Fama) and the stock prices can reflect all available information, including the political issues. Based on Efficient Market Hypothesis (EMH), a strong-form efficiency market can quickly react to both public and private news and the stock price will change in an appropriate level, neither underreact nor overreact. Thus, in a strong-form efficiency market, no investors can outperform the market and there is no way to earn excess profits.

2.2 The Reversal Effect

The Reversal Effect represent a phenomenon that stock prices overreact to the relevant news in a short term and then tend to reverse itself in a long term, recognizing and correcting the past price errors. Once stock prices continuously overshoot, then the reversal is anticipated from past return data alone (Bondt & Thaler, 1985).

2.3 The Momentum Effect

In financial market, Momentum effect shows the trend that the raising stock prices keep increasing and the falling stock prices continue decreasing. The past winners are very possible to consist stocks with high expected returns and past losers are very possible to contain stocks with low expected returns (Jegadeesh & Titman, 2002) .

2.4 The Uncertain Information Hypothesis

The Uncertain Information Hypothesis (UIH) assumes that investors often predict the stock prices before getting the results of an important financial event. In the aftermath when the

uncertainty is resolved , the subsequent changes tend to be positive (Brown, Harlow & Tinic, 1988).

2.5 The relevant study on market volatility and abnormal return.

Political uncertainty is a big risk to the overall business environment and it has a big influence to the stock market. A particular President election winner, or the right to control the Congress, can reflects the future economic-related policy, such as the tax policy, the international trade policy and the foreign exchange policy. The election process works like a trigger for the market anxiety as investors unable to precisely anticipate the changes in economic policy. Goodell and Vahamma chose 5 US presidential election cycles ---1992, 1996, 2000, 2004 and 2008, then make the regression of monthly percentage changes in volatility (S&P 500 firms) on changes in the probability of success of the eventual winning presidential candidate. The findings support the results that during US presidential election cycles, the political uncertainty affects stock market volatility and there is a positive association between implied volatility and the election probability of the winning presidential candidate (Goodell & Vahamaa, 2013).

Another important measurement during election cycle is the abnormal positive/negative return, prior or after the election week. According to the Efficient Market Hypothesis, a strong-form efficiency market can fully reflect both private and public information and then make the correct changes. However, different parties or different presidential candidate can impact the nation's fiscal and economic policy, and decide the economy development directions. Once investors are too pessimistic to the market or do not revise investment strategy based on the political events quickly, the opportunity for abnormal return is created. Pantzails, Stangeland and Turtle examined the stock market behavior around election dates for 33 countries in the period 1974-1955. There findings show that there is a positive market reaction in the two weeks

preceding political elections and when the uncertainty is resolved, there is a corresponding increase in equity prices (Pantzails, Stangeland and Turtle, 2000).

3. Hypothesis

To test the influence of US elections, the General President Election and the Midterm Election, on US stock market, this research will focus on measurements of the Volatility and the Abnormal Return before and after the election date. The political uncertainty can increase investors' anxiety to the current financial market and the future economic policy can influence the overall business environment. Once the market receive the results of President Election or the Midterm election, according to the Efficient Market Hypothesis, the market can react to all the information quickly and correct the stock prices. However, before each election, many institutions can make the accurate predictions based on the Polling results in October. Thus, the market have enough time to react with the possible result before election and the real results cannot shock the market in a deep degree.

Hypothesis 1: In Presidential Election Years, the uncertainty of elections can only slightly make negative impacts to the market return and volatility. There is no dramatic Reversal after each election.

Hypothesis 2: In Midterm Election Years, the inconsistency of Sitting President and Newly Congress (House or Senate) can make market react positively.

Hypothesis 3: The party of Newly President or Newly Congress can make the market react differently.

4. Methodology

4.1 Data Collection

This research relies on the S&P 500 index to evaluate the market performance around Election Day. Due to the S&P 500 index's relatively short history, the historical data includes the election dates from 1940 to 2018 across 20 president elections and 20 midterm elections.

The Daily Return and Total Monthly Return data was collected from Bloomberg dataset,

Because the Election Day is always the first Tuesday after the first Monday in November, the normal years' data is collected by the same period. There are totally 5 data group in my research, the Daily Return of S&P 500 index before Election Day, which is the return from the previous Monday； the Daily Return of S&P 500 index following Election Day, the return of the following Wednesday；the Daily Return of S&P 500 index on Election Day (After 1980), the Total Monthly Return of the S&P 500 index before Election and the Total Monthly Return of the S&P 500 index after Election.

However, between 1932 and 1980, the Election Day was designated as a market holiday. From 1940 to 1980, period one data is collected by the closing price of the Monday before election and the period two data is collected from the closing price of the Wednesday after election. Since 1980, the research also collected the daily return on the election Day (P*).

The CBOE Volatility Index (VIX) is a reliable measurement tool for stock volatility. The VIX index is available from Chicago Board Options Exchange and this index illustrates the expected volatility of the S&P 500 index over the next 30 days.

Research Design

Dummy Variable Analysis

To analyze the effect of Presidential Elections and Midterm Elections on P2 and (T2-T1), , this research relies on dummy variable analysis, setting Presidential Election, Midterm Election or Election as "1" and the normal years as "0". Before 1980, the election day is a market holiday. It is impossible to get the daily return on election day (P*). At the same time, the results of Elections can be obvious to the public at 10 pm or 11 pm, the market already closed. Therefore, the daily return following the election day can fully reflect all the available information and the value of P2 is more representative.

The basic analysis models for the correlation between P2 and Election are:

$$\mathbf{P2= \alpha+\beta1*Elections + \varepsilon}$$

$$\mathbf{P2= \alpha+\beta1* Presidential Elections + \varepsilon}$$

$$\mathbf{P2= \alpha+\beta1* Midterm Elections + \varepsilon}$$

To measure the basic pre-post performance of stock market in election years and normal years, using T2-T1 to represent the difference of return before and after election and Presidential and Midterm. The higher T2-T1, the post-election market had a better performance than Pre-election market.

The basic analysis model for the correlation of T2-T1 and Election are:

$$\mathbf{T2\text{-}T1= \alpha+\beta1*Elections + \varepsilon}$$

$$\mathbf{T2\text{-}T1= \alpha+\beta1* Presidential Elections + \varepsilon}$$

$$\mathbf{T2\text{-}T1= \alpha+\beta1* Midterm Elections + \varepsilon}$$

To analyze the effect of different parties on the return of S&P 500, setting Newly-Democratic as "1", Newly-Republican as "1" , Sitting –Demo as "1" and Sitting Republican as "0".

The basic analysis model for P2 is:

P2= α+β1*Newly President Democratic +β2 *Newly President Republican + β3*Sitting President Democratic + ε

The basic analysis model for T2 is

T2= α+β0*T1+β1*Newly President Democratic +β2 *Newly President Republican + β3*Sitting President Democratic + ε

Data Analysis

According to table 1a, in the past 20 president elections, the Democratic party won 10 times and the Republican Party won 10 times as well. According to table 1b, in the past 20 Midterm elections, the Republican Party control the House 6 times and control the Senate 7 times. The Democratic Party performed much better than Republican Party in Midterm Elections, they won the Senate 13 times and won the house 14 times. Among the 20 times Midterm elections, the Democratic Party control both Senate and House 12 times.

Table 1a: T1 and T2 in President Election Years

year	party	president	e-day	Party	P1	P*	P2	T1	T2
1940	Democratic	Franklin D. Roosevelt	5	D	0.72%		-3.32%	2.67%	-2.60%
1944	Democratic	Franklin D. Roosevelt	7	D	0.54%		-0.15%	-0.08%	1.16%
1948	Democratic	Harry S. Truman	2	D	1.21%		-4.61%	6.57%	-5.02%
1952	Republican	Dwight D. Eisenhower	4	R	0.33%		0.28%	0.41%	3.85%
1956	Republican	Dwight D. Eisenhower	6	R	1.32%		-1.03%	2.48%	-0.15%
1960	Democratic	John F. Kennedy	8	D	0.39%		0.44%	2.00%	2.35%
1964	Democratic	Lyndon B. Johnson	3	D	0.38%		-0.05%	0.97%	-0.93%
1968	Republican	Richard Nixon	5	R	0.04%		0.16%	-0.59%	4.51%
1972	Republican	Richard Nixon	7	R	-0.21%		-0.55%	3.98%	4.86%
1976	Democratic	Jimmy Carter	2	D	0.19%		-1.14%	-1.03%	0.82%
1980	Republican	Ronald Reagan	4	R	1.23%		1.77%	-0.22%	2.06%
1984	Republican	Ronald Reagan	6	R	0.69%	1.09%	-0.73%	4.75%	-4.49%
1988	Republican	George H. W. Bush	8	R	-0.86%	0.45%	-0.66%	-1.05%	0.52%
1992	Democratic	Bill Clinton	3	D	0.97%	-0.67%	-0.67%	2.30%	2.38%
1996	Democratic	Bill Clinton	5	D	0.42%	1.05%	1.46%	1.81%	4.23%
2000	Republican	George W. Bush	7	R	0.39%	-0.02%	-1.58%	1.62%	-6.17%
2004	Republican	George W. Bush	2	R	0.03%	0.00%	1.12%	-0.08%	5.29%
2008	Democratic	Barack Obama	4	D	-0.25%	4.08%	-5.27%	-8.50%	-15.96%
2012	Democratic	Barack Obama	6	D	0.22%	0.79%	-2.37%	-2.23%	-1.01%
2016	Republican	Donald Trump	8	R	2.22%	0.38%	1.11%	-0.66%	4.98%

Table 1b: T1 and T2 in Midterm Election Years

year	president part	president	e-day	House	Senate	P1	P*	P2	T1	T2
1942	Democratic	ranklin D. Roosevel	3	D	D	1.28%		-0.42%	4.75%	-1.06%
1946	Democratic	ranklin D. Roosevel	5	R	R	1.73%		-4.31%	3.51%	-0.20%
1950	Democratic	Harry S. Truman	7	D	D	-2.47%		1.03%	-3.78%	-0.82%
1954	Republican	wight D. Eisenhowe	2	D	D	0.35%		2.04%	-1.55%	5.36%
1958	Republican	wight D. Eisenhowe	4	D	D	0.45%		0.91%	2.36%	1.00%
1962	Democratic	John F. Kennedy	6	D	D	1.04%		0.62%	2.24%	7.19%
1966	Democratic	Lyndon B. Johnson	1	D	D	-0.10%		0.81%	10.29%	0.82%
1970	Republican	Richard Nixon	3	D	D	0.31%	0.85%	0.20%	-1.10%	5.56%
1974	Republican	Richard Nixon	5	D	D	-1.08%	2.78%	-0.48%	20.48%	-11.96%
1978	Democratic	Jimmy Carter	7	D	D	-1.03%	-1.41%	0.64%	-9.34%	3.44%
1982	Republican	Ronald Reagan	9	D	R	-1.21%	1.84%	-1.30%	9.13%	-2.11%
1986	Republican	Ronald Reagan	4	D	D	0.75%	0.16%	0.15%	5.34%	2.78%
1990	Republican	George H. W. Bush	6	D	D	0.88%	-0.94%	-1.80%	0.04%	5.60%
1994	Democratic	Bill Clinton	8	R	R	0.17%	0.56%	-0.05%	2.32%	-4.34%
1998	Democratic	Bill Clinton	3	R	R	1.18%	-0.07%	0.70%	10.80%	3.54%
2002	Republican	George W. Bush	5	R	R	0.82%	0.78%	0.91%	14.34%	-0.97%
2006	Republican	George W. Bush	7	D	D	1.14%	0.22%	0.21%	2.46%	1.77%
2010	Democratic	Barack Obama	2	R	D	0.10%	0.78%	0.37%	4.13%	2.34%
2014	Democratic	Barack Obama	4	R	R	-0.01%	-0.28%	0.57%	5.00%	2.97%
2018	Republican	Donald Trump	6	D	R	0.56%	0.63%	2.12%	-4.51%	-2.16%

Based on Figure 1a and Figure 1b, in the past 20 Presidential Elections, the daiy return following the election day dropped 13 times , the monthly return after the election day dropped 7 times. Focusing on the effect of different parties, when the Newly President is from Democratic party, the daily return following follwing election day dropped 8 times of 10 and the montly return after election day dropped 5 times of 10; when the Newly President is from Republican Party, the daily return following the election day dropped 5 times of 10 and the monthly return after election dropped 3 times of 10.

Figure 1a: The P1 and P2 in Presidential Elections Years(1940-2016)

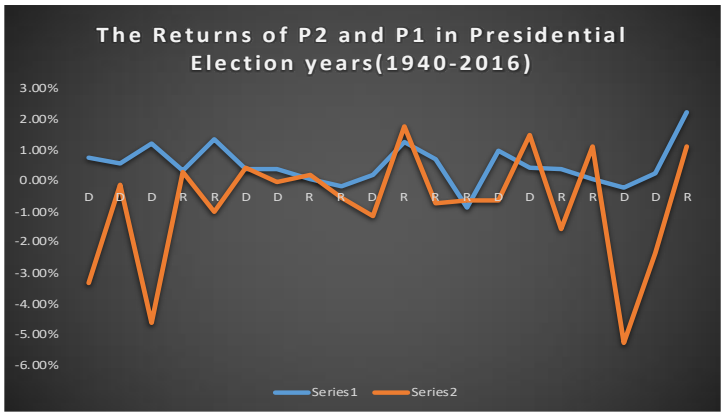


Figure 1b: The T1 and T2 in Presidential Elections Years (1940-2016)

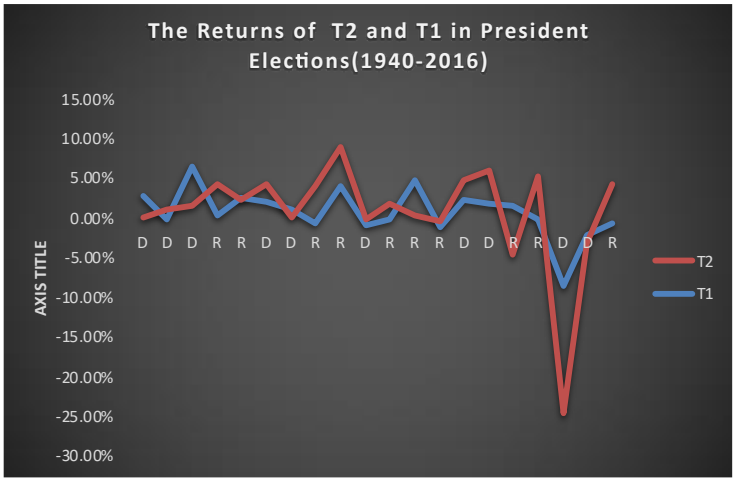


Figure 2a and 2b show the daily returns and monthly returns in Midterm Elections years. In the past 20 midterm elections, the post-election monthly return underperformed than the pre-election monthly return 13 times. In the 13 times that Democratic Party won the Senate, the daily return after the election day increased 10 times and the monthly return after election increased 10 times as well. There are totally 11 times that the party of Newly Senate and Sitting President is the same. Among the 11 times of consistence, the daily return after election increased 7 times and the monthly return after election day increased 8 times.

Figure 2a: The P1 and P2 in Midterm Elections Years(1942-2018)

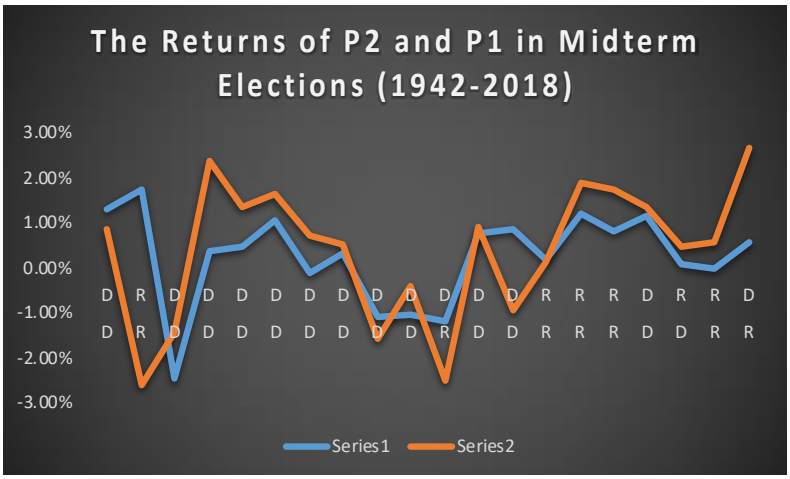
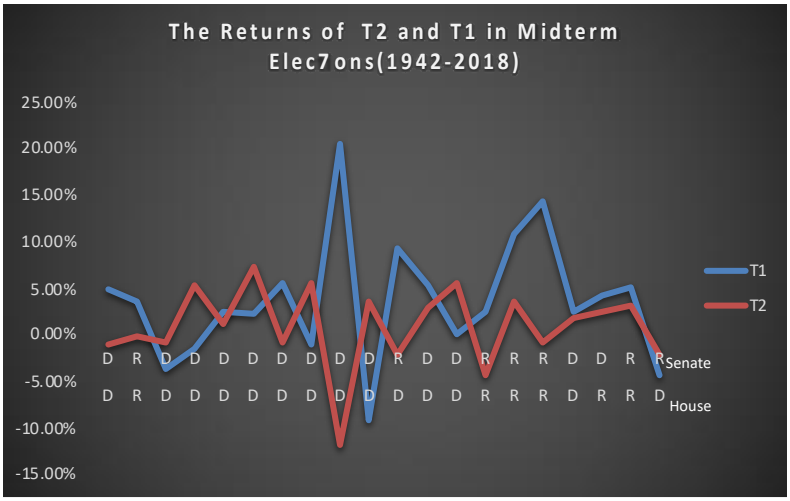


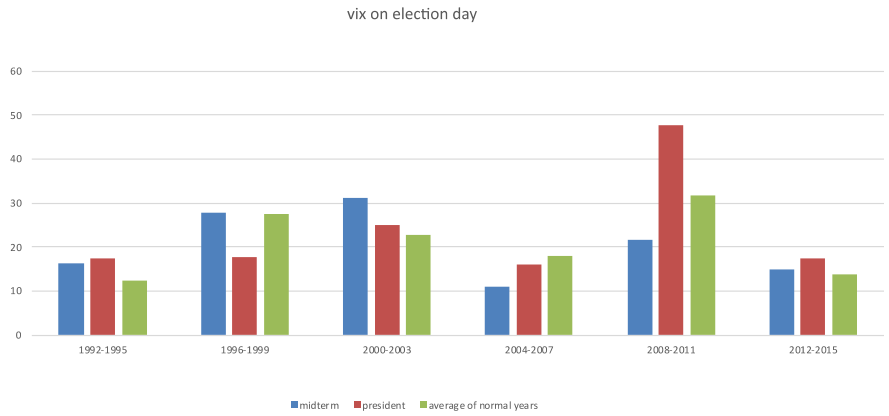
Figure 2b: The T1 and T2 in Midterm Elections Years(1942-2018)



According to Figure 3, by collecting the VIX index from 1992 to 2015, the research totally got 6 presidential circles. There are two election years, Presidential Election and Midterm Election, and two non-election years. Take the average of the VIX in non-election years, then compare the value with that in Presidential Election years and Midterm Election years. The VIX on Presidential Election and Midterm Election higher than non-election years 3 times of 6. There is no obvious pattern exist and it is hard to say the uncertainty of election is a significant influential factor to the volatility of market. Other financial-related issues,

such as the dot-com bubble burst (2000) and Financial Crisis (2008) can play a much more important role to the volatility of market.

Figure 3: The VIX on Election Day



Results

Model	(1)	(2)	(3)	(4)	(5)	(6)
	P2	P2	P2	T2-T1	T2-T1	T2-T1
Constant	0.000281 (0.905301)	0.000683 (0.715404)	-0.00249 (0.197885)	0.010033 (0.388787)	-0.000323 (0.7375)	0.004186 (0.657345)
Elections	-0.00349 (0.294744)			-0.02818 (0.087231)		
Presidential Elections		-0.00857 (0.023462)			-0.00399 (0.834827)	
Midterm Elections			0.003954 (0.302325)			-0.033268 (0.07895)
N	79	79	79	79	79	79
R-square	0.014248	0.064904	0.013811	0.037509	0.000568	0.039540
F	1.112935	5.344517	1.078316	3.000735	0.043774	3.169935

Above is the summary of regression results when setting the Elections, Presidential Elections and Midterm Elections separately. P2 is the Daily Return of S&P 500 following the Election Day and T2-T1 shows the difference of post-election one month total return and pre-election one month total return. Because the overall sample size is only 79 (1940-2018), the small sample size bias may influence the value of R-square. But the reliability of the results can still be trustful and some certain regressions do have significant accuracy.

Regression (1), (2) and (3) shows the results of the P2 in Elections, Presidential Elections and Midterm Elections. From the three equations, the Elections, Presidential Elections and Midterm elections all have slightly negative impacts to the daily return following election. Especially in Presidential Election years (2), the daily return after election can be 0.008 (0.8%) less than the daily return on Non-Presidential Election years. Because of the relatively small P-value, the existence of Midterm Election is a significant predictor of the Daily Return after Presidential Election Day.

Regression (4), (5) and (6) represent the results of T2-T1, the higher T2-T1, the post-election market had a better performance than Pre-election market. In all three elections, the

coefficients of Midterm, Presidential and Elections are negative, illustrating that following market underperformed the previous market in these years. In Midterm Election years, the value of T2- T1 can be 0.033 (-3.3%) less than that on Non-election years. It is a relatively large value and Midterm Election is a significant variable to the prediction of T2-T1.

Model	(7)	(8)	(9)	(10)
	P2	T2	T2	T2
Constant	0.002557 (0.323571)	0.005444 (0.507261)	0.003732 (0.671761)	0.001765 (0.820674)
T1		-0.027144 (0.753696)	-0.017807 (0.84636)	-0.036519 (0.691381)
Newly President-Democratic	-0.01824 (0.000589)	-0.026543 (0.102024)		
Newly President-Republican	-0.00266 (0.602850)	0.010105 (0.531528)		
Sitting President-Democratic	-0.00369 (0.310307)	0.006648 (0.562560)		
Newly Senate-Democratic			0.0112375 (0.428119)	
Newly Senate-Republican			-0.007366 (0.70864)	
Sitting Senate-Democratic			0.002922 (0.793498)	
Newly Senate and President same party				-0.001686 (0.922870)
Newly Senate and President different party				0.010865 (0.502820)
Newly Senate and President same party				0.008450 (0.473289)
N	79	79	79	79
R-square	0.148539	0.042117	0.017294	0.010476
F	4.361288	0.813440	0.325569	0.19587

The regressions (7), (8), (9) and (10) investigate the correlations between P2, T2 and the control of Party (Democratic or Republican). The regressions (7) and (8) include variables, Newly President-Democratic, Newly-President-Republican and Sitting President –Democratic. The coefficients of Newly-President-Republican and Sitting President –Democratic are too small, very close to 0, and the P-values are above 0.1, the predictions have no significant

accuracy. However, when the Newly President is from Democratic Party, there is an obvious negative effect to the stock market in very short term. The Daily Return of S&P 500 following the Election Day can be 0.018 (1.8%) less and the post-election monthly total return can be 0.026 (-2.6%) less when the Newly-President is from Democratic Party. Also, the P-Values are 0.0005 and 0.102 accordingly, thus the Newly-President Democratic is a relatively significant predictor for both P2 and T2.

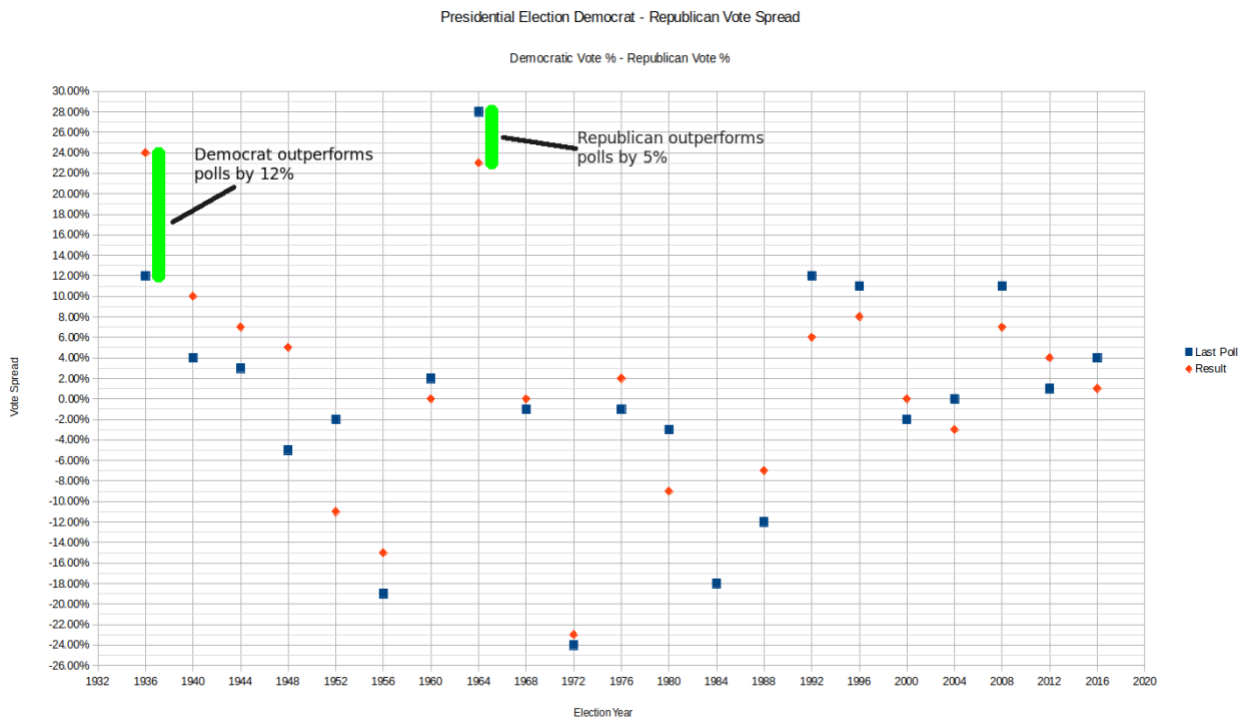
The regressions (9) illustrates the correlation between Senate and different parties. If the Newly-Senate is controlled by Democratic Party, there is a positive to the post-election market, the post-election monthly total return can be 0.011 (1.1%) higher than that in Non-Midterm Election years or Newly Senate is controlled by Republican Party. Regression (10) investigates the correlation of Newly-Senate and Sitting President, when the Newly-Senate and Sitting President are from different party, the market can have a positive reaction, increasing the return by 0.01 (1%) than Non-Midterm Election years or the years that Newly Senate and Sitting President from the same party.

Discussion

Before each Presidential Election, many institutions or organizations conduct accurate opinion polling and the last poll is in October, right before the Presidential Election. Figure 4 shows the result of Historical Polling for United States presidential elections from Gallup. The blue point represent the result of the last poll (the percentage of Democratic Party minus the percentage of Republican Party) and the red point is the real result of the presidential election. Gallup conduct the opinion polling since 1936, in the past 21 presidential elections, the polling results keeps a relatively high accuracy and only missed 4 times (1948, 1976, 2004 and 2016).

Because of the high accuracy of opinion polling prior presidential election, the anxiety of investors can get fully released. According to the efficient market hypothesis, the market can fully react all the available information. Once the actual result is the same as the predicted result, the market just react at a general level. Thus, even though the uncertainty of election is resolved, there will not have a dramatic reversal effect or highly positive abnormal return.

Figure 4:Historical polling for United States presidential elections



Gallup-Chart of democratic candidate lead over republican candidate in final poll and results by year, 1936 to 2016.

Andrew Lapp, 8 August 2017 https://en.wikipedia.org/wiki/File:Democrat_Republican_Vote_Spread_By_Year_update_1.png

However, in the past 4 times that the opinion polling missed, when Democrats became the president (1948 and 1976), the market usually react negatively and dramatically to the unexpected result. In 1948, the daily return following the election even dropped -4.61%. But when the Republicans became the president (2004 and 2016), the market usually react gently and positively. And in the relatively longer term, the post-election one month return can even perform better, reach up to 5% increase. The difference reaction to the shocked result can be explained by the different financial policies and behavior styles. Based on conventional wisdom, most investors believes republicans are supposedly more business-friendly than the Democrats, would be more beneficial for your stock holdings.

Year	Polling	Actual Result	P2	T2
1948	Republican	Democratic	-4.61%	-5.02%
1976	Republican	Democratic	-1.14%	0.82%
2004	Democratic	Republican	1.12%	5.29%
2016	Democratic	Republican	1.11%	4.98%

In Midterm Election Years, the inconsistency of Sitting President and Newly Congress (House or Senate) can help the government keep a balance between different parties. The two different parties can monitor each other and it is a good thing to the stock market.

Conclusions

Because of the accurate prediction before election and the quick reaction of the market to all available information, there is no obvious Reversal Effect or dramatic Abnormal Return after the election. The uncertainty of the results of election is not a big influential factor for the VIX index as well.

In Presidential Election years, when the President is from Democratic Party, the market usually has a relatively negative reaction compared when President is from Republican Party. In Midterm Election Years, when President's party is same as the party that control the Senate, the power is consistent and the market react positively.

Limitations

The total observations in my research is only 79. It is a relatively small sample size. It is very possible that the small sample size bias can influence my final result. The regression models all have a relatively small R-square, the largest one only about 0.14.

The lag of the market can also make influence to market returns. This research just ignore the effect of lag the market. In the real world, the lag of market can play an necessary role for the return.

Many years of Presidential Elections had coincidence with financial crisis (2000, 2008) or other influential event (World War II), these issues may influence the market as well and this research did not analyze the effects separately.

Implications/Future Research

This research just focus on the short-term returns, the daily and monthly. In the future, it is important to analyze the effects in a longer term. For example, the yearly return for the Presidential Election year, the second year, the Midterm Election year and the fourth year may be different under different parties. And the negative short term return may encourage the long term reversal.

Also, this research relies the data on S&P 500 INDEX, it only shows the overall performance of the market. However, different industries may react differently to the same results of election. It is necessary to test the reactions within each industries and analyze if each industries follows the same model.

Appendix

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.205226325							
R Square	0.042117844							
Adjusted R Square	-0.00965957							
Standard Error	0.043833671							
Observations	79							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	4	0.006251748	0.001562937	0.813440479	0.520605515			
Residual	74	0.142182911	0.001921391					
Total	78	0.148434659						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.005444509	0.008170684	0.666346826	0.507261592	-0.010835934	0.021724952	-0.010835934	0.021725
T1:one month before return	-0.027144613	0.086190772	-0.314936423	0.753696265	-0.198883475	0.144594248	-0.198883475	0.144594
newd	-0.026543498	0.016031929	-1.655664699	0.102024805	-0.058487814	0.005400817	-0.058487814	0.005401
newr	0.010105781	0.01607595	0.628627314	0.531528683	-0.021926249	0.042137811	-0.021926249	0.042138
sitiing president demo	0.00664856	0.01143024	0.581664074	0.562560738	-0.01612669	0.02942381	-0.01612669	0.029424

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.131506701							
R Square	0.017294012							
Adjusted R Square	-0.03582523							
Standard Error	0.04439802							
Observations	79							
ANOVA								
	df	*SS*	*MS*	*F*	*Significance F*			
Regression	4	0.002567031	0.000641758	0.325569633	0.859973251			
Residual	74	0.145867628	0.001971184					
Total	78	0.148434659						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.003732298	0.008773104	0.425425	0.671761557	-0.013748494	0.02121309	-0.013748494	0.021213
T1:one month before return	-0.017807678	0.091586685	-0.194435224	0.846367911	-0.200298132	0.164682777	-0.200298132	0.164683
Newly Senate demo	0.011237587	0.014103486	0.796795005	0.428119154	-0.016864222	0.039339397	-0.016864222	0.039339
Newly senate demo	-0.007366746	0.019638455	-0.375118394	0.708645429	-0.046497221	0.03176373	-0.046497221	0.031764
Sitting senate demo	0.002922471	0.011124022	0.262717126	0.793498661	-0.019242626	0.025087568	-0.019242626	0.025088

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.254763							
R Square	0.064904							
Adjusted R	0.05276							
Standard Er	0.014331							
Observatio	79							
ANOVA								
	df	*SS*	*MS*	*F*	*ignificance F*			
Regression	1	0.001098	0.001098	5.344517	0.023462			
Residual	77	0.015814	0.000205					
Total	78	0.016912						
	Coefficients	*andard Erro*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*Jpper 95.0%*
Intercept	0.000683	0.001866	0.365952	0.715404	-0.00303	0.004398	-0.00303	0.004398
president e	-0.00857	0.003708	-2.31182	0.023462	-0.01596	-0.00119	-0.01596	-0.00119

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.117519							
R Square	0.013811							
Adjusted R Square	0.001003							
Standard Error	0.014718							
Observations	79							
ANOVA								
	df	*SS*	*MS*	*F*	*ignificance F*			
Regression	1	0.000234	0.000234	1.078316	0.302325			
Residual	77	0.016679	0.000217					
Total	78	0.016912						
	Coefficients	*andard Erro*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*Jpper 95.0%*
Intercept	-0.00249	0.001916	-1.29881	0.197885	-0.0063	0.001327	-0.0063	0.001327
midterm election	0.003954	0.003808	1.03842	0.302325	-0.00363	0.011537	-0.00363	0.011537

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.102355698							
R Square	0.010476689							
Adjusted R Square	-0.043011058							
Standard Error	0.044551755							
Observations	79							
ANOVA								
	df	*SS*	*MS*	*F*	*ignificance F*			
Regression	4	0.001555104	0.000388776	0.195870823	0.939808			
Residual	74	0.146879555	0.001984859					
Total	78	0.148434659						
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*Upper 95.0%*
Intercept	0.001765675	0.007761743	0.227484317	0.820674499	-0.0137	0.017231	-0.0137	0.017231
T1:one month before return	-0.036519639	0.09163421	-0.398537174	0.691381889	-0.2191	0.146066	-0.2191	0.146066
Newly Senate and P same party	-0.001686498	0.017359845	-0.097149355	0.92287043	-0.03628	0.032904	-0.03628	0.032904
Newly Senate and P different party	0.010865639	0.016136605	0.673353456	0.502820096	-0.02129	0.043019	-0.02129	0.043019
sitting senate and P same party	0.008450188	0.011722973	0.720822948	0.473289519	-0.01491	0.031809	-0.01491	0.031809

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